NIH BSL-3/4 Pre-Clinical and Clinical Research Facilities, Fort Detrick

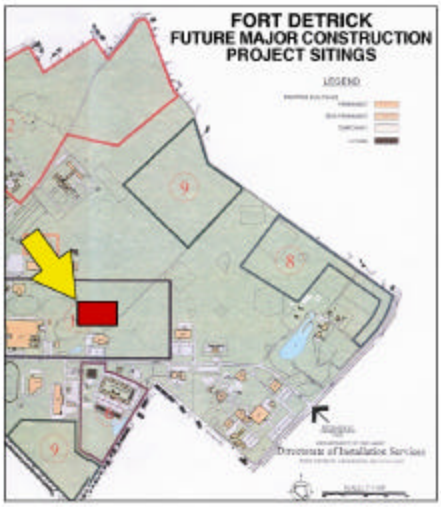
Occupancy	**TBD**
Size	120,000 gsf
Cost Design/Construction	$105 M

Research Areas

Anthrax, poxviruses, viral hemorrhagic fevers, drug-resistant bacterial infections

Features

BSL-4 lab and animal facility with clinical capability



Biodefense Research: The Microbes

- Expanded research into the microbial physiology, ecology and molecular pathogenesis of potential bioterror agents
- Genomic sequencing of potential bioterror agents, and genomic, proteomic and structural analyses of these agents
- Development of animal models to study potential bioterror agents

November 8, 2001

nature

Identification of the cellular receptor for anthrax toxin

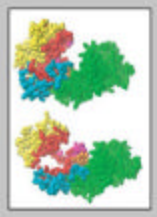
Kenneth A. Bradley, Jeremy Mogridge, Michael Mourez, R. John Collier and John A. T. Young

Crystal structure of the anthrax lethal factor

Andrew D. Pannifer, Thiang Yian Wong, Robert Schwarzenbacher, Martin Renatus, Carlo Petosa, Jadwiga Bienkowska, D. Borden Lacy, R. John Collierk, Sukjoon Park, Stephen H. Leppla, Philip Hanna and Robert C. Liddington

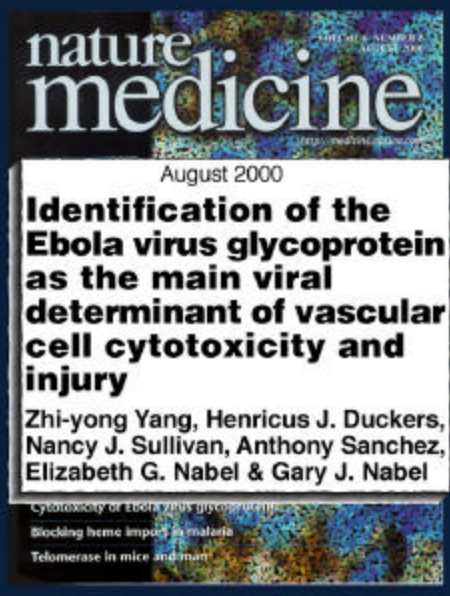
nature **scienceupdate**

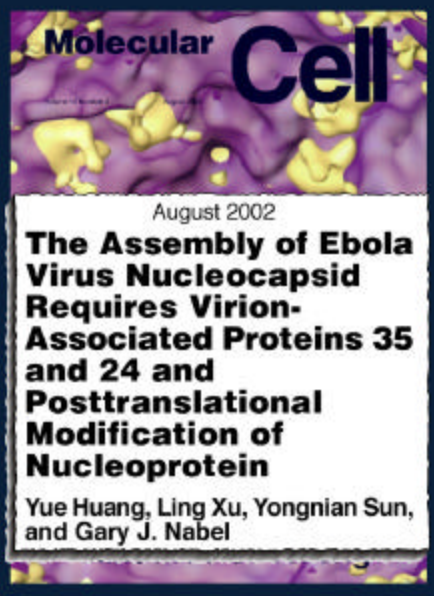
24 January 2002



Third anthrax toxin revealed

Scientists now know structure of all three anthrax toxins.





Genomic Sequencing of Potential Bioterror Agents: Selected Examples

Agent	Disease or toxin	Status
Bacillus anthracis	Anthrax	Complete, multiple strains
Brucella suis	Brucellosis	Complete
Burkholderia mallei	Glanders	Gap closure underway
Clostridium perfringens	Epsilon toxin	Gap closure underway
Coxiella burnetii	Q fever	Complete
Cryptosporidium parvum	Food- and water-borne diseases	Gap closure underway
Rickettsia typhi	Typhus	In progress
Staphylococcus aureus	Enterotoxin B	Complete
Yersinia pestis	Plague	Complete
Variola major	Smallpox	Complete sequence for some strains
Vibrio cholerae	Cholera	Complete

Biodefense Research: Immunology/Host Response

- Innate immunity
- Adaptive immunity
- Mechanistic studies of response to vaccines
- Passive immunotherapy
- Mapping of protective epitopes for microbes and their toxins

Biodefense Vaccine Research: Goals

- Protect all groups of civilians
- Develop improved vaccines against microbes for which vaccines currently exist
- Develop new/novel vaccines against microbes for which none currently exist

THE WALL STREET JOURNAL

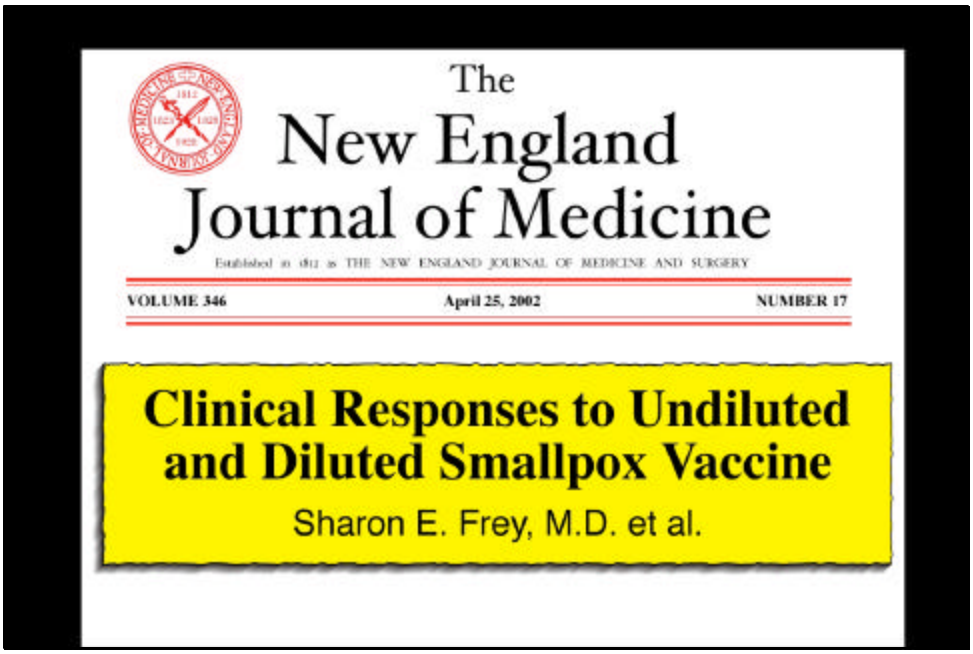
October 19, 2001

Search for Better Anthrax Vaccine Expands

Clinical Trials Are Expected

By LAURA JOHANNES and LAURIE MCGINLEY
Staff Reporters of THE WALL STREET JOURNAL


nature
Development of a preventive vaccine for Ebola virus infection in primates
Nancy J. Sullivan, Anthony Sanchez, Pierre E. Rollin, Zhi-Yong Yang & Gary J. Nabel
Ebola virus A strategy for vaccine development
Superconductivity Raising the temperature in fullerenes
Children's books Alternatives to Harry Potter


The
New England
Journal of Medicine
VOLUME 346
April 25, 2002
NUMBER 17
Clinical Responses to Undiluted and Diluted Smallpox Vaccine
Sharon E. Frey, M.D. et al.